

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002364**Date Inspected:** 12-May-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Wang Sai Fa and Lvliqing**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower and OBG Fab.**Summary of Items Observed:**

On this date, Caltrans Office of Structural Material (OSM) Quality Assurance (QA) Inspector Joselito Lizardo was present as requested to perform observations on the fabrication of Orthotropic Box Girder (OBG) and SAS Tower at Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China.

Bay Number 7: Floor Beams

The QA Inspector randomly observed the following activities on this Bay;

This QA Inspector observed tacking of bent plate for floor beam with piece mark FB005-013-021 by welder Yang Gencheng using 4mm electrode THJ506FE-1.

This QA Inspector observed Submerged Arc Welding (SAW) on splice of floor beam plates identified as FB028-002-080 and FB039-001-080 by welder Huang Xin Lan (ID# 044780). The welder was using the WPS-B-T-2221-B-L2C-S-1. This QA observed QC checking preheat prior welding and taking welding parameters during welding. The measured parameters observed were 510Amps, 30.5Volts with 430mm per min travel speed and deemed acceptable at the time of welding.

At another location, this QA observed fillet welding using Flux Cored Arc Welding (FCAW) on bent plate/flange of floor beam identified as FB014-009-023 by welder Chen Chuan Zong (ID# 044824). The procedure used was WPS-B-T-2133 and the parameters were 210Amps, 26.2Volts with 116mm/min travel speed. On different location, another welder Lin Xie (ID# 066236) was also noted welding fillet on floor beam stiffeners marked

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

FB003-035-037, 038, 069 & 050 using the same WPS mentioned above. One welder with ID# 044786 was observed welding Complete Joint Penetration/splice on floor beam flange identified as FB003-036. The measured parameters taken by QC at the time deemed acceptable to project requirements.

This QA Inspector also observed bevel cutting on 8 stiffener plates on floor beam marked FB003-043. Bevel grinding was observed on 8 stiffener plates on floor beam marked FB003-044. On another location, fit-up was observed on 2 bent plates/floor beam flange on FB003-054.

Bay number 8: Tower Diaphragms

The QA Inspector randomly observed the following activities on this Bay;

Caltrans QA J. Lizardo observed Submerged Arc Welding (SAW) on splice plates identified as SSDI-SA126 B-1B being welded by Xu Pet Pet (ID# 050323) using WPS-B-T-2221-B-U3C-S. The parameters observed were 691Amps, 33.3Volts with 645mm/min travel speed. After completing this weld, this same welder was observed welding splice on plate using SAW WPS-B-T-3221-B-U3C-S-1 on weld location NSDI-SA169 A/B-1A. On another location, welder Ma Ying (ID#045270) was also noted welding plate splice using the procedure WPS-WPS-B-T-3221-B-U3C-S mentioned. The plate is identified as SSDI-SA169 A/B-1B.

On separate location of this same bay, this QA Inspector observed Flux Cored Arc Welding (FCAW) on splice plates intended for diaphragm ring marked SSDI-SA-326 weld number 6A and 18B. The welder was identified by his ID# 045240 and used a WPS-B-T-2233-B-U3-F. Welding parameters noted were 188Amps, 24.6Volts with 110mm/min travel speed and deemed acceptable to project requirements.

This QA Inspector also observed hot bending using oxy-acetylene on heavy plates/flanges with the aid of welded jig and hydraulic ram. ZPMC QC was seen at the vicinity monitoring the thermal input into these plates. These plates are intended for diaphragm ring that will be spliced together. On the same work area, these heavy plates/flanges are also being beveled.

Summary of Conversations:

No relevant conversation occurred today.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Lizardo, Joselito	Quality Assurance Inspector
Reviewed By:	Cochran, Jim	QA Reviewer
